

Northwest Association for Biomedical Research

2007 Biomedical Breakthroughs and My Life

7-8 grade Essay Contest

Introductory Packet

❖ Contest Timeline

The enclosed timeline highlights important contest dates. Background on the judging process is provided.

❖ Contest Awards

A summary of the awards and tours provided for winners in each category and region.

❖ Topic Focus

Students are asked to focus on a biomedical research topic that is relevant to them personally. Students could discuss research-based interventions, devices, procedures, or medications/drugs that have impacted their health or the health of someone that they care about. They may also write about advances in veterinary medicine that have benefited their pets. Students also have the option of addressing how biomedical research may affect them in the future. In each essay, they must refer either generally or specifically to the role of animal research and/or human trials.

❖ Submitting Student Work

Included are the directions for submitting papers, either as an individual or as a class.

❖ NWABR Resources

This is a list of some of the resources NWABR can provide, including our Speakers' Bureau and lesson plans related to the research process.

❖ Biomedical Research and the Web

The web can be a powerful tool, but it is important that accurate and reliable sources are identified. Consider using this list of sites as good points of departure for your students to begin their projects.

❖ Essay Requirements/Scoring Criteria

NWABR has provided a detailed list of the required components, including the criteria on which essays will be judged. Copy these sheets and distribute them to your students so they can be sure to meet all of the requirements. We have a separate contest category for ESL/ELL (English as a Second Language/English Language Learner) students who have 5 years or less ESL/ELL learning. The ESL/ELL requirements/rubrics are the same as the non-ESL/ELL, but the papers will be scored by a separate group of judges.

❖ Online Registration

Please take a moment to register online to let us know of your intent to have students participate. This will allow us to recruit enough judges for the contest, as well as record your contact information accurately.

Contest Timeline

Date	Teachers and Students
December 2006	<p>Intent to Participate Online Registration Due December 1, 2006</p> <p>It is extremely important for teachers to make contact with NWABR to estimate number of entries prior to December 1, 2006, in order that we may recruit the necessary judges.</p> <p>Online registration provides us with accurate teacher contact information.</p>
March 2007	<p>Submit final entries to NWABR to be received by March 19th, 2007</p> <p>(See 'Submitting Student Work' for details)</p>
April 2007	<p>Winners are announced April 23rd, 2007.</p> <p>Letters go out to students with feedback from the judges along with certificates to the top 10% and invitations to the Award Ceremony for the winners.</p>
May 2007	<p>Research Facility Tours for winners and accompanying adults.</p> <p>Winners receive an awards booklet, which is also posted online.</p>

Judging Process

- NWABR recruits judges from the biomedical research community based on the estimates provided by teachers in December. Once the entries are received, judges are sent a packet of essays to review and give comments on. The ESL/ELL category will have its own judges.
- During the first week of April, the judges will return their comments and scores to NWABR in order to determine the top 10% of entries. Each student receives at minimum one comment from a judge.
- The top 10% will be sent out again to all the judges for review. During this second round, judges will score every essay they receive based upon the criteria.
- Once the essay scores are returned to NWABR, the winners will be determined. The entire judging process parallels the review process which scientists undergo when submitting manuscripts for publication.

Contest Awards

Winning entries will receive the following awards!

Overall Winners

Overall winners will be selected from among the regional winners

First Place Overall Essay	\$300
First Place ESL Overall Essay	\$300
Second Place Overall Essay	\$200
Second Place ESL Overall Essay	\$200
Third Place Overall Essay	\$100
Third Place ESL/ELL Overall Essay	\$100

Regional Winners

Winners will be announced for *EACH* of the three contest regions:

- *Western Washington*
- *Inland Northwest (Central/Eastern WA, ID, MT)*
- *Oregon/SW Washington*

First Place Regional Essay	\$100
First Place ESL Regional Essay	\$100
Second Place Regional Essay	\$75
Second Place ESL Regional Essay	\$75
Third Place Regional Essay	\$50
Third Place ESL/ELL Regional Essay	\$50

Winners in each region will be invited to tour a local research facility. Each winner may select one parent and one teacher to accompany them on the tour. Students, teachers and schools will be given special recognition by the Northwest Association for Biomedical Research, which may include local newspaper coverage. Entries become the property of NWABR and may be reproduced.

Topic Focus: Biomedical Breakthroughs and My Life

The 2007 contest asks students to focus on how research has affected, or has the potential to affect, someone they personally know. This could include describing the development of veterinary treatments (pets), or the process by which pharmaceutical drugs, medical devices, or surgical procedures are developed. Entries should address the importance of biomedical research and how animal models and/or human clinical trials contribute to medical breakthroughs.

Possible topics:

<ul style="list-style-type: none">• Prenatal medicine• Stem cell research• Surgeries• Medical Devices• Organ transplantation• Pharmaceutical Drugs	<ul style="list-style-type: none">• Treatments for particular diseases (diabetes, cystic fibrosis)• Research on physical effects of illegal drugs• Vaccinations• Animal medicine (pets)• Medications: Steroids, Prozac, Ritalin, Antibiotics
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Submitting Student Work

CD – For teachers entering 10 or more students, please submit student work on CD. Please make yourself a backup CD. The files should be either in WORD or PDF format, and be labeled by student last name, first initial and school (with no spaces): SmithJMercer, for example. Be sure that students follow the instructions for their cover sheets. In addition, please include an Excel spread sheet with student **LAST NAMES** and **FIRST NAMES** in columns. Label *your* spreadsheet with *your* last name, first name, and school. If either of these are a problem, please contact us.

EMAIL – For teachers entering 9 or fewer students, for home schooled students, or for students entering independently, projects may be submitted by EMAIL to elaminack@nwabr.org. The files should be either in WORD or PDF format, and be labeled by student last name, first initial and school (with no spaces): SmithJMercer, for example.

MAIL – For students without access to computers, hard copies can be sent to NWABR directly.

NWABR Resources Available for 2007 Contest

www.nwabr.org– The NWABR website has links to many on-line resources on biomedical research. The winning essays and posters from previous years may also be viewed. Please note that the focus of the contest has changed over the years, so copying the style or topic of a previous year is not recommended.

NWABR Speakers' Bureau – Researchers, clinicians, veterinarians and patients are available for personal interviews or classroom presentations on a wide range of topics in biomedical research.

Infection! – Board game where students race around the board catching diseases and learning which animals have assisted in finding cures for certain diseases.

Ethics in the Science Classroom – Lesson plans built from various case studies are available from the NWABR website or on a CD. These lessons were developed by teachers that attended the 'Ethics in the Science Classroom' workshop.

For the Greater Good – A five-lesson unit focused on a series of articles in the Seattle Post-Intelligencer describing the stories of individuals who work with animals as part of their research.

Biomedical Research and the Web

(The following web sites provide additional information on biomedical research)

www.kids4research.org

American Association for Laboratory Animal Science/Charles River Laboratory

This website is intended for students in grades K-12, their teachers, and parents. It contains extensive information about responsible laboratory animal care in biomedical/biological research, testing, and education. Included in the website is information about careers in the laboratory animal medicine field.

www.fbresearch.org

Foundation for Biomedical Research (FBR)

The Foundation for Biomedical Research is an organization that is dedicated to the improvement of the quality of human and animal health by promoting public understanding and support of the ethical use of animals in scientific and medical research. This organization provides a wide variety of educational resources to help the general public understand why animals are so important in the search for new and better ways to treat diseases that afflict both people and animals.

www.iacuc.org

Institutional Animal Care and Use Committee (IACUC)

An IACUC is a committee that exists at every institution that uses animals for research or instruction. The IACUC oversees and evaluates all aspects of the institution's animal care and use program. This web site provides information concerning the responsibilities and functions of this committee.

www.aphis.usda.gov/ac/

United States Department of Agriculture

This federal agency enforces the Animal Welfare Act, which requires that minimum standards of care and treatment be provided for most warm-blooded animals used for research as well as for other purposes such as exhibition at zoos, marine mammal facilities, and circuses. This agency conducts randomly scheduled, unannounced inspections to ensure that all regulated facilities comply with the law.

www.grants.nih.gov/grants/olaw/olaw.htm

Office of Laboratory Animal Welfare, National Institutes of Health

This web site contains the Public Health Service (which includes the National Institutes of Health) policy on the Humane Care and Use of Laboratory Animals. There are numerous links to other federal policies on the website.

<http://clinicaltrials.gov/>

ClinicalTrials.gov is a service of the National Institutes of Health. The 'Understanding Clinical Trials' portion of the site provides an extremely comprehensive outline of all aspects of clinical trials.

<http://www.cancer.gov/clinicaltrials/learning>

National Cancer Institute

The clinical trials section of the National Cancer Institute website provides an overview of human clinical trials.

<http://www.fda.gov/oashi/clinicaltrials/default.htm>

Food and Drug Administration

This site provides basic questions and answers, information on protection of human subjects, and overview articles about clinical trials.

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Biomedical Breakthroughs and My Life Essay Requirements and Scoring Criteria

CONTENT (40%) – My essay demonstrates understanding and uses supporting examples.

- I prepared a 450-650 word paper, typed (double-spaced), on 8.5" x 11" paper.
- My essay addresses the topic of 'Biomedical Breakthroughs and My Life'.
- My essay contains one central idea.
- I have at least 3 specific examples of scientific research that support my central idea.
- I describe the role of animal research and/or human trials (either in research generally or in my topic in particular).
- My essay is organized in its thinking & based on my references.

VOICE (20%) – The essay sounds like me, not an encyclopedia or existing website, and I like what I wrote.

- This is original work created by me, in my own words.

MECHANICS (15%)

- I used correct spelling, proper grammar, and accurate punctuation. I proofread my paper and had someone else proofread it .

REFLECTIVE PARAGRAPH (15%) – I understand the value of this project.

- Separate from the essay, I am submitting an additional 1-2 reflective paragraphs that describe my thoughts on the experience of doing this project.

BIBLIOGRAPHY (5%) – These accurately reflect my sources in the proper format.

- I included at least 4 references in bibliography format, with no more than 3 originating from a web-site. (Consider interviewing a scientist, doctor or patient as one source. NWABR may be able to help find someone for you to interview.)

Examples (for details consult the MLA Handbook for Writing Research Papers, Fifth Edition, Joseph Gibaldi, or ask your librarian for assistance):

Periodical/Book

Most, Andrea. "We Know We Belong to the Land." PMLA 113(1998):77-89.

Website

Britannica Online. Vers. 98.2. Apr. 1998. Encyclopedia Britannica. 17 Jan. 1998. <<http://www.eb.com/>>.

Personal interview

Poussaint, Alvin F. Telephone interview. 21 Jan. 2000.

FORMAT (5%) – My paper is correctly formatted.

- I included a title page with the following: Name, Title of Essay, Teacher's Name, Date, School, School Address, Region (Western Washington, Inland Northwest, or S.Washington/Oregon). Inland Northwest includes Eastern Washington, Idaho, and Montana.
- If I would like my paper judged in the English Language Learner/English as a Second Language (for 5 years or less of English), I indicated that on the title page.
- If submitting electronically, I labeled my file with my Last Name, First Initial, and School (no spaces). For example, John Smith at Mercer School would label his file SmithJMercer.
- My entry will be RECEIVED BY MARCH 19, 2007. (Incomplete entries lacking ANY of the required components WILL NOT be judged.)